

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

RIPARIAN HERBACEOUS COVER (ACRE)

CODE 390

MONTANA TECHNICAL GUIDE

SECTION IV

DEFINITION

Riparian areas are ecosystems that occur along watercourses or at the fringe of waterbodies. Riparian herbaceous cover consists of grasses, grasslike plants, and forbs.

PURPOSE

To restore ecological functions and establish or manage desirable herbaceous cover on riparian areas which:

- Provides habitat (food, **cover**, and water) for aquatic and terrestrial organisms.
- Intercepts direct solar radiation, creates shade, and **restores or stabilizes the appropriate width to depth ratio for the channel type** to help maintain **the ecological functions of the riparian and aquatic system**.
- Improves and protects water quality by reducing the amount of sediment and other pollutants, such as pesticides, organics, and nutrients in surface runoff as well as nutrients and chemicals in shallow ground water.
- **Adds stability** to the channel bed and streambank.
- **Provides corridors as landscape linkages** between existing habitats.
- Provides **area** for watercourses to **evolve towards** geomorphic stability.
- Improves or maintains desired plant communities.
- Provides flood attenuation and energy dissipation.

CONDITION WHERE PRACTICE APPLIES

This practice can be applied along watercourses or on the fringe of water bodies where the natural plant community is dominated by herbaceous vegetation.

Where the ecosystem has been altered and the potential natural community has changed or has been converted to cropland, pastureland, grazing land, etc., **establishment of herbaceous cover is warranted**.

CRITERIA

General Criteria Applicable to All Purposes

Select native species that are adapted to site conditions and provide diversity, cover, and food for wildlife. **Introduced or cultivated plant species may be used to meet specific project objectives**. Species selected **must** also provide a deep, binding root mass to strengthen streambanks and improve soil health.

If the area is used for livestock or hay production, protect and enhance riparian vegetation and water quality by reducing the **stress to** that vegetation **from** haying and grazing until the desired plant community is well established. A plan for livestock grazing or haying will be designed to protect and enhance established and emerging vegetation

Harmful pests present on the site will be controlled or eliminated as necessary to achieve and maintain the intended purpose.

Management systems applied will be designed to maintain the vigor and reproduction of the desired plant community. Timing of haying or grazing will avoid periods when streambanks

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are saturated and vulnerable to livestock or mechanical damage.

Necessary site preparation and planting shall be done at a time and manner to insure survival and growth of selected species. Only viable, high quality, and adapted planting stock will be used. Site preparation shall be sufficient for establishment and growth of selected species and be done in a manner that does not compromise the intended purpose.

Site hydrology must be analyzed. Plant species selected must be adapted to the anticipated periods of saturation and inundation of the site.

Channel and streambank stability must be evaluated in selecting this practice or determining that this practice may need to be combined with other practices that better address stability issues.

Riparian area widths will vary depending on the channel valley shape.

Other applicable practices—**found in the Field Office Technical Guide (FOTG), Section IV, Practice Standards**—include, but are not limited to:

- 382–Fence
- 391–Riparian Forest Buffer
- 512–Pasture and Hayland Planting
- 550–Range Planting
- 580–Streambank and Shoreline Protection
- 584–Stream Channel Stabilization
- NCS–Vegetative Bioengineering
- **322–Channel Vegetation**
- **342–Critical Area Planting**
- **393–Filter Strips**
- **643–Restoration and Management of Declining Habitats**

Additional Criteria to Protect or Improve Water Quality

Concentrated flow erosion or mass soil movement shall be controlled in the up-gradient area prior to establishment of the riparian herbaceous cover.

The plant community **will** be managed and maintained to optimize **the ecological** functions of the riparian zone.

CONSIDERATIONS

Consider habitat and wildlife objectives such as: habitat diversity, habitat linkages, daily and seasonal habitat ranges, limiting factors, and native plant communities.

The plant communities established and targeted successional stage will depend on the desired riparian values, existing resources in the watershed, and local management objectives.

Where native seed sources are adequate and meet the intended purpose of the riparian cover, natural regeneration will be allowed.

This practice can be combined with filter strips to improve water quality.

Consider riparian restoration on a watershed basis to address habitat fragmentation, connectivity, and provide corridors for wildlife.

This practice should be included as part of an overall management system.

Establish alternative water sources or controlled access stream crossings to manage livestock access to the stream and riparian area.

Select plant species that are native and have multiple values such as biomass production, nesting, aesthetics, and tolerance to locally used herbicides.

Species diversity should be considered.

The location, layout, and density of the **practice** should compliment natural features.

Corridor configuration, species planted, and management should enhance habitats for threatened, endangered, and other species of concern, where applicable.

Use caution when using introduced species as they may become invasive.

Consideration should be given to managing the upland habitat in order to maintain the longevity of the practice.

PLANS AND SPECIFICATIONS

Specifications for this practice shall be prepared for each site. Specifications shall be recorded using approved specifications sheets, job sheets, narrative statements in the conservation plan, or other acceptable documentation.

OPERATION AND MAINTENANCE

The purpose of operation, maintenance, and management is to insure that the practice functions as intended over time.

The riparian area will be inspected periodically and protected to maintain the intended purpose.

Monitoring will ensure that there will be no adverse impacts such as excessive vehicular and pedestrian traffic, pest infestations, any use of fertilizers, livestock damage, and fire.

As applicable, concentrated flow erosion or mass soil movement shall be **controlled** in the up-gradient area to maintain riparian function.

Management is needed to maintain vegetation, including control of unwanted vegetation.

A riparian functional assessment can monitor the change in riparian ecological health and thus indicate future management direction.

Conservation practice standards are reviewed periodically and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.